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9. MATERIAL ASSETS

9.1 Introduction

This section of the rEIS is an overview of the material and amenity resources within the vicinity of the development. It details those “assets” that may have potentially been affected by the development and indicates the associated sections within this rEIS that considers these potential impacts.

Resources that are valued and that are intrinsic to specific places are called ‘material assets’. Material assets comprise the physical resources in the environment, may be of either human or natural origin and their value may arise for either economic or cultural reasons. The assessment objectives vary considerably according to the type of assets, those for economic assets being concerned primarily with ensuring equitable and sustainable use of resources. Assessments of cultural assets are more typically concerned with securing the integrity and continuity of both the asset and its necessary context (Sweett Group, 2012). The impacts on Cultural Heritage have been identified in chapter 8 of this rEIS.

The objective of this assessment is to ensure that these assets are used in a sustainable manner with respect to rock extraction operations at the application site.

The working quarry consists of the extraction area and associated stockpiling areas, office, canteen, processing infrastructure and settlement ponds.

9.2 Methodology

Potential impacts on material assets were assessed through a desktop study. The study and assessment was carried out in accordance with the European Communities (Environmental Impact Assessment) Regulations and in line with the appropriate Environmental Protection Agency’s Advice Notes on Current Practice.

The advice notes in relation to quarries (Quarries and open-cast mining of stone, gravel, sand or clay) list the following issues under material assets for this category of activity:

- Effects of vibration on surface structure.
- Road damage due to transport and machinery use.
- Loss of, or damage to water supplies.
- Effects potential for groundwater development in the area, in the future, especially down-gradient of the site.
- Impacts on geological heritage.

The material assets, which have been identified as being within and adjacent to the application site and which may be directly affected by the activities undertaken are addressed below in terms of existing environment, impacts and mitigation measures.

There is an element of crossover between this section and certain other sections. Some of the items listed above have been dealt with under the relevant sections of the rEIS for instance Water, Dust, Archaeological Heritage, Architecture and Monuments in separate chapters.

9.3 Existing Environment

The application site is located in a relatively rural environment with the predominant land use in the environs of the application site comprising of the existing working quarry which the application site forms part of and agricultural land. Despite being located c 2.5km from Stranorlar town the settlement pattern in the area generally consist of one off housing developments.

The nearest dwelling is situated approximately 300m from the nearest point of extraction. The material assets that have been identified within the application site and in the surrounding landscape are listed below:

- Residential Buildings
- Geological Resource
- Land Resource
- Road Network
- Public Utilities
- Waste
- Waste Water
- Recreational Facilities, Amenities and Tourism

9.4 Assessment of Impacts

9.4.1 Residential Impacts

The nearest receptor is located approx. 300m from the working quarry face. All other houses are located more than 500m from the quarry. The area mainly consists of one-off housing / farmsteads along the local roads. The main impacts on residences from the existing development are in relation to landscape, dust and noise as a result of extraction and processing activities. It is envisaged that if the proposed mitigation measures are put in place that the impacts will be off-set.

9.4.2 Geological Resource

The application site is an active quarry producing stone that is used in the construction industry.

The demand for stone during the years of peak construction from 2000-2008 resulted in a steady demand for stone, however demand reduced significantly from 2008 to December 2014 and in the period since that, the operators have been extracting stone that had previously been blasted crushed and stockpiled.

The loss of a geological resource cannot be replaced; however, the extracted stone and aggregate by-product has been and will be used to supply the local construction market therefore benefiting the local area as well as providing employment. Due to the current size of the extraction area, it is not anticipated that the existing extraction activities have resulted in a significant loss of geological resource. The continued operation of the existing development will serve the demand for aggregate into the future.

The natural resources on site will be utilised in an efficient and prudent manner to ensure the potential of the site is reached and that the maximum benefit is gained from extracted non-renewable resources.

Any impacts on the geology surrounding the quarry at Gortletteragh have been described in further detail in another section of the rEIS. Please refer to Chapter 5 Chapter (Soils and Geology) for further information.

9.4.3 Land Resource

The export of material has resulted in an obvious net loss in the geological resource at the site which was agricultural grassland and a historic quarry, which was evident on 1830s's Ordnance Survey maps. However, the development of the quarry has not resulted in a significant loss of geological heritage as the site does not occupy an area of particular note with regard to geology. No geological heritage sites are located within 15 km of the site. The majority of land in the vicinity of the application site is used as agricultural land or woodland therefore the change of use did not result in a significant loss of a valuable land resource.

While the loss of rock constitutes a permanent net loss, the net impact on geological heritage is considered minor negative to imperceptible.

Once extraction has been completed a restoration plan will be put in place to restore the quarry to attract wildlife to the area and increase the biodiversity of the area.

9.4.4 Road Network and Access

The existing quarrying operation is located in a rural area c.2.5km east of Stranorlar, Co Donegal and c1.1km north of the N15 National Primary Road.

All vehicles leaving the quarry travel via the local road network and gain access to the N15 and N13 c2.3km to the west at Glebe, Stranorlar. This route has previously been deemed acceptable by both Donegal County Council and An Bord Pleanala when considering a number of planning applications.

For economic reasons, aggregates are generally delivered within a 30km radius of the quarry.

The existing development resulted in an increase in local road traffic, however, the average number of vehicle movements is considered to be minor when compared large scale commercial developments. The number of movements per day in planning application 09/60062 was stated to be an average of 3-lorries per day or 6 traffic movements. The housing density in the area is low while resulting traffic volumes generated by the quarry are also very low.

Given the recent decline in demand for stone, the maximum number of loads per week travelling along the local roads has fallen from the peak of 6 movements per day.

The existing traffic associated with the development is currently at low levels and it is envisaged that previous levels will not be experienced during the lifetime of the quarry. The main movements are associated with staff who travel to and from their nearby homes in the area at times when the quarry is not operating.

The applicant maintains two rigid tipper truck. No other trucks or tractor-trailers access the site. The truck exits the site through the single entrance located on the south-eastern quarry boundary.

Given the low volumes of traffic generated by the site, no damage to the road network has occurred or is likely to occur in the future. Even at peak times the local network of minor roads has more than sufficient capacity to deal with the small volume of quarry traffic. No significant impact has been identified; the impact has been minor, negative to imperceptible at a local level.

9.4.5 Public Utilities

The working quarry which consists of the majority of infrastructure is serviced by power from the grid and a phone line. A single phase electricity supply is being used in the quarry.

A public water supply is connected to the toilet within the temporary office building (portacabin)

If additional public utilities are required in the future the relevant public utility companies will be contacted.

9.4.6 Waste

Construction and demolition waste arises from the construction, repair and maintenance, excavated soil and dredging spoil.

The quarry generates a very low volume of waste on-site. The topsoil removed from the quarry is stored on site or has been used to fill adjoining lands and will be used as part of the landscaping, restoration and rehabilitation process. All of the stone extracted from the site has a function and none is considered as waste.

Not all of the materials that were extracted were needed immediately and those parts of the stone that were left over were stockpiled to be crushed and sold as aggregate fill at a later stage, or may have been crushed to be used as decorative chippings for gardens, graves etc. In this way the quarry does not generate waste as per the definition of “extractive waste” contained in European Directive (2006/12/EC).

9.4.7 Waste Water

The quarry is not served by a public sewer as it is located too far outside the urban populous.

The area is not served by a public sewer and it is generally un-serviced rural land that is used for agriculture and rural residential development.

A traditional septic tank and percolation area are used on-site.

9.4.8 Recreational Facilities, Amenities and Tourism

Gortletteragh enjoys a location in a region steeped in history and falls within the area of CLADDA, the ‘Cooladawson Local and District Development Association’.

Gortletteragh Waterfall and the Scith Picnic area are located c500m to the east of the quarry. It was opened in 2001 on the site of a former quarry and was enhanced in 2009 by the addition of floodlighting, resurfacing and the creation of a viewing area with views over the Finn Valley and towards Barnesmore. A tourist walking trail leads from the Picnic area to the Steeple which is located c1.2km north of the quarry and continues until it meets the N13 road close to the junction with the R236 Convoy Road.



Plate 9.1 Gort Scith picnic area

The recreational facilities or amenities, has not been affected by the operation of the quarry.

9.5 Assessment of Impacts

In this chapter, relevant material assets have been described in relation to the quarry at Gortletteragh.

Further information on certain factors; including water, flora, fauna, geology, landscape and cultural heritage have been described in greater detail in other chapters of this rEIS.

Due to the small scale operation and the location of the quarry at Gortletteragh, the impacts of the quarry on the material assets immediately surrounding the area can be said to be minimal.

9.6 Cumulative Impacts

With respect to existing quarry developments in the local area, an obvious economic impact arises due to competition. However, this impact is part of the normal competitive environment in which quarry companies operate. The applicant proposes to continue with the existing quarry operation. Traffic movements associated with the quarry do not affect the operation any other existing quarries in the region.

9.7 Mitigation Measures

A range of mitigation measures have been incorporated into the ongoing operation and as part of this application to eliminate and / or minimise the potential impacts on these material assets. These mitigation measures have been referred to in this document under the relevant environmental topic.

Apart from roads and geology, there is a minor long term impact on farming through the loss of a small area of Pasture that had the potential for growing trees or grazing. This land may be returned to agriculture at the end of the life of the quarry.

There are no further mitigation measures proposed concerning material assets.

The following is a summary of the basic minimum requirements that should be in place as the quarry has developed and are incorporated into current working methodology:

- A dedicated waste separation strategy should be put in place to facilitate materials recover, reuse etc. and to minimise the amounts of waste which will go to landfill. A number of waste recycling contractors should be used as appropriate when certain categories of waste are generated. All industrial wastes should be sent to an appropriate licenced facility.

9.8 Residual Impacts

No residual impacts are envisaged as part of this application.